

Faculty of Economic, Social and Political Sciences



DEMO3422 Theory and practice of surveys

[20h] 3 credits

Teacher(s): Claude-Michel Loriaux
Language: French
Level: Third cycle

Aims

A command of the theoretical foundations and of the rules of carrying out surveys.

Main themes

- Principles and definitions: populations and samples; probabilist surveys vs purposive surveys; survey errors vs errors of observation; notions of representativeness and of accuracy; and the bases of surveys and survey errors
- a review of descriptive and probabilist statistics: estimator, random variable, variance and bias; normal law and sampling distribution; from the known to the unknown: probabilist inference from samples; sampling with/without replacement; level of significance and intervals of trust.
- Simple random surveys: estimating the average of a total, or a proportion, and of a ratio; methods of sampling: random and systematic; variance and the typical errors of other parameters; determination of the required sample-size; the main ways of departing from simple random sampling.
- Stratified samples: principles and notations; the formula for estimating the total average and their sampling variance; ways of distributing sampling between strata: proportional, optimal, and identical precision.
- Surveys at several degrees: principles and notations; sampling of primary units marked by equal and unequal probabilities: estimators of the total and of the average, and of their sampling variance; cluster surveys and cluster effects; combined complex plans and estimating the effects of "design".
- A posteriori stratification.
- Special features and examples of demographic surveys.

Other information (prerequisite, evaluation (assessment methods), course materials recommended readings, ...)

Assessment: This will look at personal or group work based on a substantive example of a real or simulated survey. Illustrations or errors in surveys on social and demographic indicators.

Other credits in programs

DEMO3DA	Diplôme d'études approfondies en démographie	(3 credits)	
DEMO3DS	Diplôme d'études spécialisées en populations et sociétés	(3 credits)	Mandatory
SC3DA/G	Diplôme d'études approfondies en sciences (Géographie)	(3 credits)	
STAT21MS/MS	Première année du master en statistique, orientation générale, à finalité spécialisée (marketing et sondage)	(3 credits)	
STAT22MS/MS	Deuxième année du master en statistique, orientation générale, à finalité spécialisée (marketing et sondage)	(3 credits)	